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4, 7TH MAIN MALLESWARAM, BANGALORE -3

QC ABSTRACT

NAME OF WORK: Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	WMM	Sieve Analysis	One Test		1	1
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
2	BM	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral Aggregate	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
3	BC	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
4	BITUMEN	Ductility	One Test		1	1
		Softening Point	One Test		1	1
		Penetration	One Test		1	1
		Flash Point	One Test		1	1
		Fire Point	One Test		1	1
5	TACK COAT	Rate of spread	One Test		1	1

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TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2023-06-26-28** **Date: 27-03-23**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara

Agency : M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64

Customer Reference : BBMP/EE/BTP/WO/59/2021-22

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 25-03-23

Type of Mix : WMM (Wet Mix Macadam)

Date of Test : 25-03-23

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	319	319	2.9	97.1	95-100
22.4	2265	2584	23.5	76.5	60-80
11.2	2186	4770	43.4	56.6	40-60
4.75	2263	7033	63.9	36.1	25-40
2.36	1634	8667	78.8	21.2	15-30
0.6	626	9293	84.5	15.5	8-22
0.075	1338	10631	96.6	3.4	0-5

* The results obtained are satisfactory as per standard requirements.

Note:-

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TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 27-03-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	25-03-23
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	:	25-03-23

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Pecentage	24.6	

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DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 27-03-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	25-03-23
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of Test	:	25-03-23

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.9%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.7%	
Combined Flakiness and Elongation Index for WMM	25.6%	

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Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 31-03-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer's Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	29-03-23
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)
Date of Test	:	29-03-23

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**62**	Min 45mm
2	Softening Point, °C	**51.4**	Min. 47°C
3	Ductility, cm	**98**	Min. 40cm
4	Flash point, °C	**292**	Min. 220°C
	Fire point, °C	**304**	

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TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 05-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	03-04-23
Type of Mix	:	BM-Plant (Bituminous Macadam)
Date of Test	:	03-04-23
Weight of Sample(gm)	:	5000

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	166	166	3.3	96.7	90-100
13.2	519	685	13.7	86.3	56-88
4.75	2766	3451	69.0	31.0	16-36
2.36	923	4374	87.5	12.5	4-19
0.3	344	4718	94.4	5.6	2-10
0.075	218	4936	98.7	1.3	0-8
PAN	63	4999	100.0	0.0	0

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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 06-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	03-04-23
Type of Mix	:	BM (Bituminous Macadam)
Date of Test	:	03-04-23

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	13.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	8.4		
Strength	Aggregate Impact Value	25.8	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.52	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.17	Maximum 2%	IS:2386 Part III

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 06-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	03-04-23
Type of Mix	:	BM(Bitumnous Macadam)
Date of Test	:	03-04-23
Type of Binder	:	60/70
% of Binder Used	:	3.4%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	6.8 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

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TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 06-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	03-04-23
Type of Mix	:	BM (Bituminous Mecadam)
Date of Test	:	03-04-23

The results of the tests conducted on the Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	–

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 14-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	13-04-23
Type of Mix	:	BM (Bituminous Macadam)
Date of Test	:	13-04-23

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	485	484.5
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1}$ X 100	3.4	3.50
7	Average percentage	%	3.45	

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Lab ID : **CP-RW-2023-06-26-28** **Date: 14-04-23**

AFTER EXTRACTION(Trail-1)

Weight of Sample : 485 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	35	35	7.2	92.8	90-100
13.2	148	183	37.7	62.3	56-88
4.75	193	376	77.5	22.5	16-36
2.36	31	407	83.9	16.1	4-19
0.3	39	446	92.0	8.0	2-10
0.075	23	469	96.7	3.3	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample : 484.5 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	39	39	8.0	92.0	90-100
13.2	145	184	38.0	62.0	56-88
4.75	197	381	78.6	21.4	16-36
2.36	25	406	83.8	16.2	4-19
0.3	45	451	93.1	6.9	2-10
0.075	21	472	97.4	2.6	0-8

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TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 10-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-23
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of Test	:	08-04-23
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	86	86	1.7	98.3	90-100
9.5	705	791	15.8	84.2	70-88
4.75	891	1682	33.6	66.4	53-71
2.36	585	2267	45.3	54.7	42-58
1.18	490	2757	55.1	44.9	34-48
0.6	501	3258	65.2	34.8	26-38
0.3	533	3791	75.8	24.2	18-28
0.15	450	4241	84.8	15.2	12-20
0.075	354	4595	91.9	8.1	4-10
PAN	405	5000	100	0.0	0

* The results obtained are satisfactory as per standard requirements.

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 11-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-23
Type of Mix	:	BC(Bitumenous Concrete)
Date of Test	:	08-04-23

Type of Binder	:	60/70
% of Binder Used	:	5.4%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.8 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 11-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-23
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	08-04-23

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.9	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	12.8		
Strength	Aggregate Impact Value	22.6	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.62	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.23	Maximum 2%	IS:2386 Part III

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TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 11-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	08-04-23
Type of Mix	:	BC (Bituminous Concrete)
Date of Test	:	08-04-23

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	_

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID : **CP-RW-2023-06-26-28** **Date: 15-04-23**

Customer : Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.

Address : Vidyaranyapura Sub Division, BBMP, Bangalore.

Project Name : Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara

Agency : M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64

Customer Reference : BBMP/EE/BTP/WO/59/2021-22

Source of Sample : Sample supplied by Agency

Date of Receipt : 14-04-23

Type of Mix : BC (Bituminous Concrete)

Date of Test : 14-04-23

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	475	474.5
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1}$ X 100	5.40	5.50
7	Average percentage	%	5.45	

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Lab ID : **CP-RW-2023-06-26-28** **Date: 15-04-23**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 475

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	7	7	1.5	98.5	90-100
9.5	63	70	14.7	85.3	70-88
4.75	118	188	39.6	60.4	53-71
2.36	75	263	55.4	44.6	42-58
1.18	33	296	62.3	37.7	34-48
0.6	15	311	65.5	34.5	26-38
0.3	47	358	75.4	24.6	18-28
0.15	49	407	85.7	14.3	12-20
0.075	41	448	94.3	5.7	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 474.5

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	9	9	1.9	98.1	90-100
9.5	65	74	15.6	84.4	70-88
4.75	119	193	40.7	59.3	53-71
2.36	71	264	55.6	44.4	42-58
1.18	38	302	63.6	36.4	34-48
0.6	19	321	67.7	32.3	26-38
0.3	42	363	76.5	23.5	18-28
0.15	44	407	85.8	14.2	12-20
0.075	43	450	94.8	5.2	4-10

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DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID	:	**CP-RW-2023-06-26-28** **Date: 15-04-23**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads and drains at Simhadri layout, New Sai Garden layout and surrounding in ward No. 11, Kuvempunagara
Agency	:	M/S Sathya Constructions, (Prop) R Satheesh, No:600, Down Bazaar Road, Yelahanka, Bangalore-64
Customer Reference	:	BBMP/EE/BTP/WO/59/2021-22
Sample Condition	:	Satisfactory
Date of Receipt	:	14-04-23
Type of Mix	:	Tack coat
Date of Test	:	14-04-23

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

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